

Applying Lessons from Maine's Educational Opportunity Tax Credit to the Student Loan Repayment Tax Credit

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DATA SOURCES AND METHODS FOR EOTC IMPLEMENTATION

My primary data sources for EOTC program background and implementation include stakeholder discussions and document review. I spoke with a variety of stakeholders including staff at Maine Revenue Services (MRS) and current and former members of the state legislature to better understand the history, goals, eligibility criteria, and application process. I also conducted 30- to 60-minute-long semistructured interviews with financial aid officers at 10 out of 28 colleges or universities in Maine (about 36 percent). Table A.1 shows the sector of each college or university and the number of colleges or universities whose representatives I interviewed. Overall, I interviewed a roughly equal share of representatives from college or universities in each sector (college type), suggesting that the findings from these interviews will be broadly generalizable across Maine colleges and universities. Financial aid officers are typically responsible for issuing financial aid packages, communicating with other offices (e.g., admissions), managing and complying with federal aid programs (e.g., Pell grants and federal student loans), and answering student inquiries. As a result, they can speak to challenges students typically face regarding several aspects of the EOTC. I took notes and recorded each interview, and used recordings to clarify any section of my notes that were not clear. I used Dedoose, a qualitative coding software, to code interview data based on topic. For each topic, I then summarized relevant themes and findings. I also reviewed publicly available documents such as EOTC guidance for filers and documents provided by Maine Revenue Services such as guidelines on current and former eligibility.

DATA SOURCES AND METHODS FOR DESCRIPTIVE AND TAKE-UP ANALYSIS

My primary quantitative dataset was a rich panel dataset of all graduates of the University of Maine System (UMS) and Maine Community College System (MCCS) comprised of administrative postsecondary education records linked to tax data. This dataset includes information about all tax filers in Maine from 2003 to 2019 and all graduates from UMS and MCCS from 2008 to 2019. Information from the tax data includes annual gross income, the number of dependents, whether an individual had student loan debt, and whether a filer received the EOTC in a given tax year. For graduates from UMS and MCCS, I also included information about a degree type, degree discipline, college/university attended, and graduation year.

I used simple descriptive statistics to describe various measures regarding the EOTC, including (1) the total number of EOTC credits MRS administers each year; (2) the percentage of eligible individuals receiving an EOTC credit; (3) the total dollar amount of credits awarded; and (4) the average dollar amount of each credit awarded. The total amount spent on EOTC credits is the sum of all EOTC credits MRS administers each year—it does not include other costs, like marketing or staff costs to administer the EOTC.

TABLE A1: **Number of Colleges and Universities in Sample and Interviewed**

Sector	# colleges in Maine ^a	# colleges included
Private not-for-profit, 4-year or above	10	3
Public or private, 2-year ^b	8	3
Public, 4-year or above	10	4
Total	28	10

^a The sample includes colleges with over 100 students enrolled in 2018.

^b The public or private, 2-year category includes public 2-year colleges and private for-profit 2-year colleges.

I estimated EOTC take-up, or the percentage of filers who apply for and receive the EOTC divided by the total number of eligible filers, using the UMS/MCCS tax and education panel dataset. Eligibility is complicated to estimate because EOTC eligibility has changed over time. I explain eligibility in detail in the main report, but put simply, individuals are eligible if they live in Maine, work in Maine, are paying towards their student debt, and have an eligible degree. I proxy for working in Maine if a filer had positive wages reported on a W2 or were self-employed. Having an eligible degree is based on graduation year, college location (e.g., college in Maine or outside of Maine), and degree type (e.g., associate's, bachelor's, graduate degrees).¹

LIMITATIONS OF DATA SOURCES AND METHODS

There are several important limitations of my methodology. First, I interviewed financial aid officers to better understand challenges students face when filing the EOTC and how students hear about the EOTC. Certainly, financial aid officers interact with students. However, a more direct way to understand student or alumni perceptions of the EOTC would have been to interview students directly. I chose to interview financial aid officers for practical reasons: contact information for financial aid officers is typically publicly available, and as a result, is easier to obtain a representative sample.

Second, I also limited my sample to estimate take-up in two ways. One, I limited my take-up estimates just to graduates of UMS/MCCS because I only observed EOTC degree requirements for UMS/MCCS graduates, not all filers. Two, I limited my take-up estimates to include only single filers. EOTC credits are provided based on each tax return, and married filers can earn an EOTC credit based on either their education background or their spouse's or both. There is no way to distinguish eligibility among spouses. On the one hand, we may expect married filers to have higher take-up. For example, they likely have higher household incomes than single filers and as a result may be more likely to work with an accountant or be savvy tax filers. On the other hand, if their incomes are higher, they may be less concerned with obtaining the tax credit, especially if they have lower levels of debt. Single filers are more likely to migrate, so if

the state is concerned with retaining UMS/MCCS graduates, single filers are likely a more important population to learn about (Goworowska and Gardner 2012).²

Third, I am not able to directly measure the relationship between program design and implementation and take-up. I do provide several explanations, but these are typically suppositions rather than evidence-based conclusions.

NOTES

- 1 It is difficult to identify whether an employer was based in Maine because the employer's address on a W2 is not always the same as the location at which the employee works. As a result, I assume that all workers in Maine with a W2 worked in a Maine-based location. If state of employment were a reliable field in the data, I may expect take-up estimates to increase slightly because we are decreasing our eligible pool of filers. Indeed, I did run this analysis both ways and found that when incorporating state provided on a W2, take-up estimates increased by several percentage points in any given year. Additionally, one component of eligibility prior to 2016 included a filer's residency while they were in college. Prior to 2016, filers were eligible only if they were Maine residents while they were in college. I proxy for this by determining whether they were claimed as a dependent on a Maine tax return the year in which they were 17. Because I only observe tax data back until 2003, I can only use this information for filers born after 1986. To include this estimate, I estimate two versions of take-up. The first does not include the college residency requirement and includes filers of all ages. The second includes only filers who were 25 or younger at their college graduation, and I include the college residency requirement.
- 2 In 2019, UMS/MCCS graduates accounted for 53 percent of EOTC credits and single filers accounted for 62 percent of all filers. As a result, I estimate my take-up sample is estimated on about 33 percent of the full EOTC eligible population in 2019. This share is likely higher in earlier years. For example, using similar logic, I estimate my UMS/MCCS single sample to represent 42 percent of all eligible filers in 2013. UMS/MCCS represent 62 percent of all credits, and credits to single filers represent 68 percent of credits. Even though these are estimates are for a relatively small share of the population, they are nevertheless useful to analyze.

REFERENCES

- Goworowska, Justyna, and Todd K. Gardner. 2012. Historical Migration of the Young, Single, College Educated: 1965–2000. Population Division Working Paper No. 94. Washington, DC: U.S. Census Bureau. <https://www.census.gov/library/working-papers/2012/demo/POP-twps0094.html>.

TABLE A2: Eligibility Guidelines for Individual EOTC Credits, by Year

Requirement	Year											
	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19
Residency												
Maine resident during tax year	X	X	X	X	X	X	X	X	X	X	X	X
Maine resident while attending Maine college	X	X	X	X	X	X	X	X				
Employment												
Work for employer located in Maine	X	X	X	X	X	X	X					
Work for employer located in Maine unless deployed for military service						X	X					
Must work in Maine (except, may work outside Maine for up to 3 months OR deployed for military service)								X	X	X	X	X
Must work in Maine (except, may work outside Maine for up to 3 months OR work at least part-time on a vessel at sea)									X	X	X	X
Self-employed eligible in Maine								X	X	X	X	X
Degrees												
Earned associate's degree or bachelor's degree from an accredited Maine community college, college or university after 2007	X	X	X	X	X	X	X	X	X	X	X	X
OR												
Earned non-Maine associate's degree or bachelor's degree after 2015									X	X	X	X
OR												
Earned Maine graduate degree after 2015									X	X	X	X
100% of coursework toward degree after 2007 performed at Maine community college, college or university	X	X	X	X	X							
Allow up to 30 credit hours earned after 2007 at non-Maine college if transfer to Maine college occurred after 2012						X	X	X				
Allow all Maine and non-Maine coursework completed after 2007									X	X	X	X
Student Opportunity Contract Required	X	X										
Student Loans												
Loans for coursework (for degree program) performed after 2007	X	X	X	X	X	X	X	X	X	X	X	X
Loan term minimum of 8 years	X	X	X	X	X							
Allow refinanced or consolidated loans only when refinanced or consolidated with other eligible loans	X	X	X	X	X	X	X					
Allow refinanced or consolidated loans when eligible loans refinanced or consolidated with other education loans in proportion to the portion of loan payments that are eligible								X	X	X	X	X
Refundability												
Credit nonrefundable	X	X	X	X	X							
STEM associate's and bachelor's degrees refundable						X	X	X	X	X	X	X
ALL associate's degrees refundable									X	X	X	X

Source: Maine Revenue Services, Income/Estate Tax Division.